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Two New Species of *Psephenus* Hald., with a Note on *Narpus angustus* Casey (Coleop.).

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In 1893, Col. Casey described two new species of *Psephenus* from California (Coleop. Not., V, Annals N. Y. Acad. Sci., VII, p. 578.) At the present time are given two additional species, also from California.

Psephenus lanei new species.

Form moderately depressed, subcuneate-oval, narrowed anteriorly.

Color black; antennae toward base and first three joints of the maxillary palpi slightly paler; surface luster dull, feebly shining. Pubescence moderately abundant; hairs short and silvery on the body beneath; on the upper surface, nearly erect, sparse and rather stiff, longer hairs are intermixed with abundant small, short, semi-recumbent, apically pale hairs.

Head transverse, eyes prominent and rounded; raised apical margin evenly arcuate from side to side between the antennae, as viewed perpendicular to the surface; front broadly and moderately concave, punctures rather closely placed, subequal in size and rather small; deflexed edge of the front narrow and moderately inflexed, labrum about three times as long as the inflexed front and emarginate at apex as in *lecontei*.

Maxillary palpi fully three-fourths as long as the antennae; second joint elongate, at least four times as long as wide at apex. Antennae rather slender, not incrassate, and extending to about the pronotal base; joints four to ten inclusive, scarcely longer than wide, third obconical and about twice as long as wide near the apex; eleventh short oval.

Pronotum transverse, apex arcuate and about two-thirds as wide as the base; apical angles rather broadly rounded; sides moderately convergent anteriorly, broadly but not strongly arcuate and somewhat broadly sinuate a short distance before the base, thence arcuate to the basal angles, the latter obtuse and distinct and not in the least rounded; base rather strongly lobed at middle, thence broadly and rather strongly sinuate to the angles; disk almost evenly and rather moderately convex, distinctly impressed within the angles and more narrowly along the sides, most strongly so at the basal angles; punctures larger and smaller intermixed, the larger are subgranulate, more sparsely placed and give origin to the black hairs, the smaller to the pale hairs.

Elytra about one-third longer than wide, slightly widest posteriorly; sides feebly converging toward base, rather straight in basal half, thence arcuate to the less broadly rounded apex, sutural angles not evident; disk rather evenly and less than moderately convex, somewhat flattened apically and subexplanate laterally, less and narrowly so toward base, punctures fine, larger and smaller intermixed, the latter most abundant.

Sixth abdominal segment deeply emarginate at middle, emargination rounded at base, edges clothed with black hairs. Tibiae and tarsi slender. Measurements.—Length (type) 3.5 mm.; width 2 mm.

Holotype, male, and one *paratype*, male, in my own collection. Type locality.—Juliaetta, Idaho. Collected on July 7th, 1922, by Mr. Merton C. Lane, of Ritzville, Washington, to whom I dedicate the species.

I have before me a series of six specimens of *P. lecontei*, collected in Maryland and Pennsylvania. *Lanci* is distinct in its very long maxillary palpi and different form of the pronotum. It resembles *lecontei* in the character of the pubescence and form of the labrum. In *lanci* however, the basal angles of the pronotum are distinct and not in the least rounded, and the pronotal sides are less convergent and more arcuate; the prosternal process is less sharply carinate between the coxae. In *haldemani* the front is longitudinally divided; in *falli* the vestiture is dense and the pronotal apex truncate and the disk evenly convex; in *veluticollis* the pronotum is velvety-black in the female. The female of *lanci* is not at hand.

Psephenus calaveras new species

Form oblong-oval, about twice as long as wide, moderately depressed.

Color black, under surface opaque; appendages and abdominal segments more or less fuscous or testaceo-fuscous, basal margin of the elytra slightly paler. Surface somewhat shining, head and pronotum opaque and velvety black. Pubescence dual as in the other species, finer and shorter than in *lanai* or *lecontei*; longer hairs semi-recumbent, paler ones very small and inconspicuous.

Head transverse, eyes very prominent and rounded; frontal apex arcuate, rather feebly reflexed; front broadly impressed, punctures rather dense, small and subequal in size, a few larger ones in the supraorbital region, where the hairs are long and overhang the eyes. A few large punctures are seen on the vertex. The frontal apex is arcuate from side to side and narrowly, evenly impressed, inflexed edge very short as viewed longitudinally from the front; the labrum is about twice as wide as long, impressed in the central area and the apex emarginate. The pubescence is abundant on the labrum and apical parts of the front. Second joint of the maxillary palpi about as long as the third and fourth taken together, antennae moderately short, extending to about the middle of the pronotum; joints four to eleven inclusive subequal in relative proportions, fourth and fifth smallest, thence the joints increase very slightly and gradually in size, scarcely incrassate; third joint triangulo-obconical and slightly elongate.

Pronotum transverse, about one-third wider than long; apex rather moderately arcuate and about two-thirds as wide as the base; apical angles broadly rounded into the apex and sides, the latter moderately convergent anteriorly, almost straight or very feebly and broadly sinuate in middle two fourths, thence arcuately continuous with the apical angles, posteriorly more strongly rounding to the basal angles which are obtusely rounded and somewhat prominent posteriorly; base broadly and evenly lobed at middle, thence broadly, evenly and distinctly sinuate laterally to the angles; disk rather evenly and very moderately convex, quite broadly impressed laterally and slightly reflexed, impressions wider and deeper within the angles, especially at the base, punctures very minute, scarcely larger than the base of the hairs, those for the larger hairs feebly subsperate especially at the periphery; hairs notably fine.

Elytra about one-third longer than wide, scarcely wider posteriorly; sides subparallel and feebly arcuate, deflexed in basal half beneath and behind the humeri, evenly and rather strongly arcuate posteriorly into the more narrowly rounded apex, sutural angles absent; base of each elytron arcuate and adapted to the sinuate pronotal base; disk very moderately convex, less so and rather flattened apically, punctures abundant and small, the larger giving origin to the coarser hairs; surface finely rugulose.

Beneath very abundantly clothed with fine, short, soft hairs. Propygidial segment broadly emarginate at apex. Fifth abdominal segment as a whole broadly arcuate, but feebly sinuate in middle two fourths. Tibiae and tarsi very slender.

Measurements.—Length 4 mm.; width 2 mm.

Holotype a unique female, in my own collection. This was secured from beneath a rock on the edge of the Calaveras River, near Lombardi's ranch, Calaveras County, California, July 18th, 1910. During the many years that I have collected along the mountain streams in the Sierras and elsewhere, this is the only specimen that I have ever collected. They are evidently very rare.

Calaveras is very distinct from any described species. Up to the present time I have referred it to *veluticollis* Casey. The punctures of the pronotal disk are excessively small, the minute hairs seem to arise directly from the surface. The long hairs of the supraorbital region appear to be more marked than in *lecontei*; the labrum is impressed at middle, not so in *lanai* and *lecontei*. In *calaveras* the two basal joints of the metatarsi are subequal and together about equal to the length of the last.

In *lecontei* the labrum is short and quite equal in length to the inflexed edge of the frontal apex (male); both longer and likewise quite equal in length (female). In the latter sex the pronotal punctation is very fine, almost as in *calaveras* (female).

The six known species may be tabulated as follows:

Impression of the head longitudinally divided; elytra pale at base.	
California	<i>haldemani</i> Horn.
Impression of the head not longitudinally divided; elytra uniform in coloration, except very narrowly on the basal margin	
Sides of the pronotum strongly convergent, the apex not more than one half as wide as the base. Eastern United States	<i>lecontei</i> Lec.
Sides of the pronotum feebly convergent, the apex wider, two-thirds to three-fourths as wide as the base.	
Pronotum velvety black.	
Sides of the pronotum evenly and feebly arcuate from base to apex; Pronotal punctures rather strong and dense anteriorly, becoming finer and sparse behind.	
California	<i>veluticollis</i> Casey.

- Sides of pronotum straight or feebly sinuate in middle two fourths, anteriorly arcuately continuous with the rounded apical angles; apex arcuate; labrum impressed at middle; pronotal punctures scarcely recognizable. Female. California *calaveras* n. sp.
- Pronotum dull and opaque, not velvety.
- Sides of the pronotum broadly rounded and subparallel toward base, more convergent and nearly straight anteriorly; apex truncate; elytra with impressed lines, disk feebly elevated along the suture. Male. California *fallei* Casey.
- Sides of the pronotum broadly arcuate, somewhat broadly feebly sinuate at middle; apex arcuate; elytra without impressed lines, not elevated along suture. Male. Idaho *lanei* n. sp.

***Narpus angustus* Casey.**

Two specimens of this rare species were taken by the writer on July 23d, 1908, while collecting along the Russian River, Sonoma County, at Monte Rio. At that time the river was quite low and there were numerous side pools. One in particular was very prolific as regards the immense number of specimens that I secured from it; it was situated at the base of a clump of red alders and the many roots, both dead and living, in it formed an obstacle to its thorough exploration. The base of another and small tree, which had been felled and afterward washed out was in the bottom of the pool. It was from this that I took my two specimens of *Narpus*. There were many hundreds of specimens of *Hydroporus eximius* Mots. about the old stump; by the use of the net a large number of *Agabus lugens* Lec., *Ilybiosoma regularis* Lec. and *Helichus suturalis* Lec. were obtained. Col. Casey's specimen was found dead and mutilated. My capture is the first record of living specimens having been collected that I have any knowledge of. The species may have been taken by others but if so I have never seen any account of it.

Flies Preying on Mosquito Larvae (Diptera: Muscidae, Culicidae)

Having been instrumental in getting some work accomplished above Millbourne Dam on Philadelphia side, I took a picture of one of the breeding spots of *Culex pipiens* after the water had slowly receded. Half an hour afterwards flies (*Lucilia caesar*) commenced to feed on the larvae lying as thick as a pie.

But what is a spot of breeding ground about 20 feet long to an area of 4 acres? The men worked one day and are being used for other work the next day. The flies commenced laying eggs when I left the place.

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